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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,234	12/27/2001	Norman Franklin Krasner	GES.025C	9405

7590

04/05/2004

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RESTON, VA 20191

EXAMINER

CORRIELUS, JEAN B

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/027,234

Applicant(s)

KRASNER, NORMAN FRANKLIN

Examiner

Jean B Corrielus

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/27/01&4/16/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 8-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,8-10,12-15,19,20 and 22 is/are rejected.
- 7) ☒ Claim(s) 4,11,16-18 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/27/01</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: **receiving said one or more first preamble information bits after detecting said one initial detection sequence; receiving said one or more second preamble information bits after detecting said one unique word**, recited in claim 1 do not have proper antecedent basis in the specification.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-3, 8-10, 13, 14 and 22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 5,668,431. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the pending application are clearly encompassed by claims of the Patent as follow: claim 1 of the application is encompassed by claim 1 of the patent .

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claim 2 encompassed by claim 1, claim 3 encompassed by claim 1. Claim 14 encompassed by claim 3, and claim 22 by claim 1. given that, it would have been obvious to one skill in the art to modify the claims as shown in the pending application in such a way to broaden the scope of the claim so as to minimize cost to implement the system.

As per claim 9, U.S. Patent No. 5,668,431 teaches every feature of the claimed invention but does not explicitly teach the further limitation of BPSK modulating the preamble sync. It would have been obvious to one skill in the art to a BPSK modulation scheme to modulate the preamble sync signal in order to satisfy system requirement.

As per claims 10 and 13, it would have been obvious to one skill in the art to implement both DSSS and/or BPSK in the transmitter so as to provide both modulation and security to the system.

4. Claims 5 and 12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 5,668,431 in view of Schmidt et al US Patent No. 3,838,221.

As per claim 12, as applied to claim 1 above, patent no. 5,668,431 teaches substantially every feature of the claimed invention but do not explicitly teach that the preamble is differentially encoded at the transmitter and differentially decoded at the receiver. In the same field of endeavor, Schmidt teaches that said preamble is differentially encoded at the transmitter 100 using means 406 and differentially decoded at the receiver using means 704. Given that fact, it would have been obvious to one skill in the art at the time of the invention to

incorporate such a teaching in Patent No. 5,668,431 so as to add and remove coding from the data channels as taught by Schmidt et al see col. 8, lines 3-6.

As per claim 5, Schmidt teaches the preamble sync sequence is direct sequence spreading at the transmitter see col. 7, lines 62-66, and direct sequence despreading the sequence at the receiver using means 706. given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in the pending application and Patent No. 5,668,431 in order to in order to prevent the signal from being accessed by unintended users.

5. Claims 15, 19 and 20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 5,668,431 in view of Fleming, III et al US patent No. 6,282,232.

As applied to claim 14 above, Patent No. 5,668,431 teaches every feature of the claimed invention but does not explicitly teach the further limitation of a delay line integrator receiving the initial detection sequence and producing an initial peak signal; a threshold detector receiving the initial peak signal and producing therefrom the one or more preamble information bits. In the same field of endeavor, Fleming teaches a delay line integrator 160 receiving the initial detection sequence and producing an initial peak signal; a threshold detector 170 receiving the initial peak signal and producing therefrom the one or more preamble information bits . Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in Patent No. 5,668,431 so as to improve data detection.

As per claims 19 and 20, Patent No. 5,668,431 teaches every feature of the claimed invention but does not explicitly teach the further limitation a matched filter having tap delay

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lines matching the unique word. Saw et al teaches limitation a matched filter matching the unique word see col. 1, lines 42-55. Given that fact, it would have been obvious to one skill in the art at the time of the invention to incorporate such a teaching in Patent No. 5,668,431 so as to improve data detection.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 8 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagata et al US patent No. 4,745,408.

As per claim 1, Nagata et al discloses a method of communicating information in a preamble synchronization sequence of a burst transmission comprising the steps of, selecting using means 37, at the transmitter fig. 1, a selected one of a plurality of initial detection sequences, representing one or more preamble information bits; selecting using element 38 a selected one of a plurality of unique words representing one or more second preamble information bits; transmitting said preamble sync sequence comprising the selected one of initial sequence and said selected one of unique word via antenna 54 see col. 1, lines 50-54; receiving at the receiver fig. 2 said preamble sync sequence via antenna 100 see col. 1, lines 50-60; detecting at the receiver fig. 2 using means 430 said initial detection sequence to produce first time sync information and to receive said one or more first preamble information bits; detecting

using means 420 said one unique word to produce second time sync information and to receive said one or more second preamble information bits see figs 4 and 5.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 , 5, 10, 12, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata in view of Schmidt et al US Patent No. 3,838,221.

As per claims 2, 12 and 22, as applied to claim 1 above, Nagata teaches substantially every feature of the claimed invention but does not explicitly teach that the preamble is differentially encoded at the transmitter and differentially decoded at the receiver. In the same field of endeavor, Schmidt teaches that said preamble is differentially encoded at the transmitter 100 using means 406 and differentially decoded at the receiver using means 704. Given that fact, it would have been obvious to one skill in the art at the time of the invention to incorporate such a teaching in Nagata so as to add and remove coding from the data channels as taught by Schmidt et al see col. 8, lines 3-6.

As per claim 10, Schmidt teaches the preamble sync sequence is direct sequence spreading at the transmitter see col. 7, lines 62-66, and direct sequence despreading the sequence at the receiver using means 706. given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in Nagata in order to in order to prevent the signal from being accessed by unintended users.

10. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata.

As per claim 9, Nagata teaches every feature of the claimed invention but does not explicitly teach the further limitation of BPSK modulating the preamble sync. It would have been obvious to one skill in the art to a BPSK modulation scheme to modulate the preamble sync signal in order to satisfy system requirement.

As per claim 10, it would have been obvious to one skill in the art to implement both DSSS and BPSK in the transmitter so as to provide both modulation and security to the system.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata in view of Fleming, III et al US patent No. 6,282,232.

As applied to claim 14 above, Nagata teaches every feature of the claimed invention but does not explicitly teach the further limitation of a delay line integrator receiving the initial detection sequence and producing an initial peak signal; a threshold detector receiving the initial peak signal and producing therefrom the one or more preamble information bits. In the same field of endeavor, Fleming teaches a delay line integrator 160 receiving the initial detection sequence and producing an initial peak signal; a threshold detector 170 receiving the initial peak signal and producing therefrom the one or more preamble information bits. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in Nagata so as to enhanced data detection.

12. Claim 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata in view of Fleming, III et al US patent No. 6,282,232.

As applied to claim 14 above, Nagata teaches every feature of the claimed invention but does not explicitly teach the further limitation a matched filter having tap delay lines matching the unique word. Saw et al teaches limitation a matched filter matching the unique word see col. 1, lines 42-55. Given that fact, it would have been obvious to one skill in the art at the time of the invention to incorporate such a teaching in Nagata so as to enhanced data detection.

Allowable Subject Matter

13. Claims 4, 11, 16-18 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

14. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:


(703) 305-3988 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

15. Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Jean B. Corrielus whose
telephone number is (703) 305-4023. The examiner can normally be reached on
Monday-Thursday from 7:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Mohammad Ghayour, can be reached on (703) 306-3034.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Group receptionist whose telephone number is (703) 305-3800.


Jean B. Corrielus
Primary Examiner
TE-2600 4/2/04